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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/026,094      | 12/21/2001  | Chen Feng            | ICM-P007            | 7470             |

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EXAMINER

DO, ANH HONG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,094

Applicant(s)

FENG, CHEN

Examiner

ANH H. DO

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 8-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 2/6/2006 have been fully considered but they are not persuasive.

In response to the Applicant's argument that the prior art does not disclose "an illuminated pattern with sharp edges", it should be noted that Longacre clearly teaches illumination module 20 including illumination optics 24 (i.e., reflectors) and LEDs 22 (Fig. 2) for collectively generating a uniform pattern with sharp edges 80 (Fig. 7) as it illuminates a target data area.

For the foregoing reason, it is believed to sustain the rejection.

2. The indicated allowability of claims 13-15 is withdrawn in view of the new discovery in Longacre. Rejections based on the new discovery follow.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "curvature and shape of the reflective surface is curved for..." (claims 2, 4, 8, and 10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 7, and 13-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Longacre, Jr. et al. (U.S. Patent No. 6,264,105).

Regarding claims 1 and 7, Longacre discloses:

- an image sensor (Fig. 2: image sensor 32);
- an illumination module 20 coupled to the image sensor 20, the illumination

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module comprising a plurality of reflectors 24 that reflects light of a light source 22 (Fig. 2), and collectively generate a uniform illumination pattern with sharp edges 80 (as shown in Fig. 7) for both illuminating a target data area (i.e., a target object T) (col. 2, lines 62-66) and providing visual aiming assistance even without an aimer 23, wherein there is a distinct light source element per reflector (Fig. 2: each LED 22 per reflector 24).

Regarding claim 13, Longacre discloses:

- the illumination pattern comprising a shape and uniformity by a plurality of reflectors 24 coupled to a data collection image sensor 32, wherein the reflectors 24 reflects light from a light source 22, and wherein there is a distinct light source element per reflector (each LED 22 per reflector 24), and wherein each illumination pattern generated by each reflector 24 inherently matches all other illumination pattern generated by all other reflectors 24 and collectively generate a uniform illumination pattern (since all the reflectors 24 are the same) (see Fig. 2).

Regarding claims 14 and 15, Longacre discloses:

- projecting an illumination pattern on a target image area T, the illumination pattern comprising a shape and uniformity by a plurality of reflectors 24 coupled to a data collection image sensor 32, wherein the reflectors 24 reflects light from a light source 22, and wherein the illumination pattern 20 provides both image illumination and visual aiming assistance (using reflectors 24 and LEDs 22), wherein there is a distinct light source element per reflector (each LED 22 per reflector 24), and wherein each illumination pattern generated by each reflector 24 inherently matches all other

illumination pattern generated by all other reflectors 24 and collectively generate a uniform illumination pattern (since all the reflectors 24 are the same) (see Fig. 2).

***Allowable Subject Matter***

6. Claims 2-6 and 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 8, the prior art, taken either singly or in combination, does not teach:

- wherein each reflector comprises an opaque reflective surface... and sharp edges of the illumination pattern.

Regarding claims 3 and 6, and 9 and 12, since these claims depend upon claims 2 and 8, respectively, they are also objected for the reason.

Regarding claims 4 and 10, the prior art, taken either singly or in combination, does not teach:

- wherein each reflector comprises a transparent solid with a reflective internal surface, ... and sharp edges of the illumination pattern.

Regarding claims 5 and 11, since these claims depends upon claims 4 and 10, respectively, they are also objected for the same reason.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 27, 2006



**ANH HONG DO**  
**PRIMARY EXAMINER**